File 155:MEDLINE(R) 1966-1995/Nov W2
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Set Items Description
--- ----- -----------
?s ascorbic(w)acid

17714 ASCORBIC
701717 ACID
S1 17692 ASCORBIC(W)ACID
?s s1 and vaccin?

17692 S1
75697 VACCIN?
S2 34 S1 AND VACCIN?
?t s2/6/1-32

2/7/34
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00002146 66002146
Influence of ***ascorbic*** ***acid*** on the viral cytopathogenic activity in tissue cluture. 3. Study of the effect of ***ascorbic*** ***acid*** on cytopathogenic acitvity of the ***vaccinia*** virus] Influenza dell'acido ascorbico sull'attivita citopatogena virale in colture di tessuto. 3) Studio dell'effetto dell'acido ascorbico sull'attivita citopatogena del virus cvaccinico.
Lavegas E; Coto V; Fantoni V; Formisano S; Coraggio F
Riv Ist Sieroter Ital (ITALY) May-Jun 1965, 40 (3) p141-5, ISSN 0300-9904 Journal Code: TKH
Languages: ITALIAN
Document type: JOURNAL ARTICLE
?s s1 and virus?

17692 S1
227801 VIRUS?
S3 128 S1 AND VIRUS?
?s s3 and (inactiv? or kill?)

128 S3
78010 INACTIV?
56071 KILL?
S4 17 S3 AND (INACTIV? OR KILL?)
?t s4/6/1-17

4/7/1
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09414686 95344686

In vitro ***inactivation*** of human immunodeficiency ***virus*** by ***ascorbic*** ***acid***.
Rawal BD; Bartolini F; Vyas GN
Department of Laboratory Medicine, University of California, San Francisco 94143-0134, USA.
Biologicals (ENGLAND) Mar 1995, 23 (1) p75-81, ISSN 1045-1056 Journal Code: AMW
Contract/Grant No.: RO1-HL-41365, HL, NHLBI
Languages: ENGLISH
Document type: JOURNAL ARTICLE

In vitro ***inactivation*** of cell-free human immunodeficiency ***virus*** (CFHIV) was investigated by mixing replication-competent virions with aliquots of a culture medium (RPMI) containing increasing amounts (62.5-500 micrograms/ml) of ***ascorbic*** ***acid*** (AA) at pH7. Similarly, mixtures of CFHIV and 500 micrograms/ml AA in whole blood (WB) and leukocyte depleted blood (LDB) were made; control mixtures containing either CFHIV or AA alone in each experiment were included. After holding the mixtures for 3 h at 4 degrees C, the tubes containing WB and LDB mixtures were centrifuged to remove the blood cells. The respective supernatants, including the control aliquots, were layered over 0.5 x 10(6) MT2 cells in quadruplicate wells in microtitre plates. After 1 h of incubation at 37 degrees C in an atmosphere of 5.0% carbon dioxide to permit contact of viable virions, the fluid in each well was replaced with RPMI containing 20% fetal bovine serum (FBS). The incubation was then continued at 37 degrees C for 5 days. On the basis of (1) absence of syncytia formation, (2) 100% viability of MT2 cells as compared with the cell controls, (3) absence of p24 antigen in the culture supernates, and (4) absence of HIV DNA in MT2 cells, we conclude that 500 micrograms/ml AA, in (a) RPMI, (b) WB, or (c) LDB, ***inactivated*** CFHIV in vitro. Furthermore, we determined that addition of 500 micrograms/ml AA to platelet concentrates did not adversely affect the platelet function tests during 5 days of storage at room temperature. These data warrant further work to evaluate the mechanism of CFHIV ***inactivation*** by treatment of blood products with AA.

4/7/6
DIALOG(R)File 155:MEDLINE(R)

06251334 87225334
Virus-***inactivating*** effect of D-isoascorbic acid. Murata A; Kawasaki M; Motomatsu H; Kato F
J Nutr Sci Vitaminol (Tokyo) (JAPAN) Dec 1986, 32 (6) p559-67, ISSN 0301-4800 Journal Code: JFD
Languages: ENGLISH
Document type: JOURNAL ARTICLE

The effect of D-isoascorbic acid, an epimer of L-***ascorbic*** ***acid***, on ***viruses*** was investigated using a wide variety of bacterial ***viruses*** (phages) as model systems. D-isoascorbic acid exerted an ***inactivating*** effect on all phages examined. The reaction mechanism of ***virus*** ***inactivation*** by D-isoascorbic acid was investigated using phage J1 as a model system. Bubbling oxygen through the reaction mixture and the addition of H2O2 or transition metal ions into the reaction mixture enhanced the phage ***inactivation*** by D-isoascorbic acid. In contrast, nitrogen bubbling and the addition of reducing agents, chelating agents or radical scavengers prevented phage ***inactivation***. Experiments using specific radical scavengers, superoxide dismutase or catalase showed that OH. could be mainly responsible for phage ***inactivation*** by D-isoascorbic acid. These findings are similar to those obtained with L-***ascorbic*** ***acid***, and indicate that phage- ***inactivating*** activity is independent of the stereoisomerism with inversion of the hydroxyl group at carbon 5 of ascorbic acids.

4/7/8
DIALOG(R)File 155:MEDLINE(R)

06060183 87034183
In vitro effect of ***ascorbic*** ***acid*** on infectivity of herpesviruses and paramyxoviruses.
White LA; Freeman CY; Forrester BD; Chappell WA

J Clin Microbiol (UNITED STATES) Oct 1986, 24 (4) p527-31, ISSN 0095-1137 Journal Code: HSH

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Suspensions of herpes simplex ***virus*** types 1 and 2, cytomegalovirus, and parainfluenzavirus type 2 were ***inactivated*** within 24 h when treated at 37 degrees C with 1 mg (5.05 mM) of copper-catalyzed sodium ascorbate per ml. The infectivity titer of respiratory syncytial ***virus*** was reduced substantially after 24 h but required 48 h for ***inactivation***. Under these conditions, ***inactivation*** of these ***viruses*** was also successfully achieved with 5.68 mM catalyzed ***ascorbic*** ***acid*** . Copper (Cu2+), when added with the ascorbate solution at 5 micrograms/ml (0.022 mM), exhibited a catalytic effect on the ***inactivation*** of these ***viruses***. The rate of ***inactivation*** was affected by the incubation temperature, time of exposure, and the ***virus*** concentration. Ascorbate concentrations as high as 10 mg/ml (50.5 mM) demonstrated only a minimum increase in effect on viral ***inactivation*** . The loss of infectivity did not alter either the hemagglutination or complement fixation qualities of the antigens.

4/7/16

DIALOG(R)File 155:MEDLINE(R)

02851710 76032710

Virus-***inactivating*** effect of L-***ascorbic*** ***acid***: scissions of nucleic acid strands by free radicals (author's transl)] Murata A

Tanpakushitsu Kakusan Koso (JAPAN) May 1975, 20 (6) p593-601, ISSN 0039-9450 Journal Code: Q7D

Languages: JAPANESE

Document type: JOURNAL ARTICLE; REVIEW

(73 Refs.)

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